

Customer No.: 31561  
Application No.: 10/605,399  
Docket No.: 11853-US-PA

### REMARKS

#### Present Status of the Application

The Office Action objected claim 10 because of the following informalities: in line 6, "temptempto" should be changed to "--to--".

The Office Action rejected claims 1-2, 4, 7-13, 15, 18-23 and 26-27 under 35 U.S.C. 103(a), as being unpatentable over Xin et al. U.S. Patent 6,268,818 B1 in view of Darabi U.S. Patent 7,103,113 B2 and Lampe et al. U.S. Patent 5,633,893.

The Office Action rejected claims 5, 16 and 24 under 35 U.S.C. 103(a), as being unpatentable over Xin et al. U.S. Patent 6,268,818 B1 in view of Darabi U.S. Patent 7,103,113 B2 and Lampe et al. U.S. Patent 5,633,893 as applied to claim 1 above, and further in view of Chen et al. U.S. Patent 7,167,528.

The Office Action rejected claims 6, 17 and 25 under 35 U.S.C. 103(a), as being unpatentable over Xin et al. U.S. Patent 6,268,818 B1 in view of Darabi U.S. Patent 7,103,113 B2 and Lampe et al. U.S. Patent 5,633,893 as applied to claim 1 above, and further in view of Genrich et al. U.S. Patent 5,596,609.

The Office Action objected claims 3 and 14 as being dependent upon a rejected base claims, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Applicant has amended claims 1, 10, 11, and 22 to further improve clarity. Applicants have also canceled claim 3, 14, and 21. After entry of the foregoing amendments, claims 1-2, 4-

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13, 15-20, and 22-27 remain pending in the present application, and reconsideration of those claims is respectfully requested.

**Discussion of Office Action Objections**

The Office Action objected claim 10 because of the following informalities: in line 6, "temptempto" should be changed to "--to--".

Applicant has amended "temptempto" to "--to--", in claim 10.

**Discussion of Office Action Rejections under 35 U.S.C. 103**

Claims 1-2, 4, 7-13, 15, 18-23 and 26-27 are rejected under 35 U.S.C. 103(a), as being unpatentable over Xin et al. U.S. Patent 6,268,818 B1 in view of Darabi U.S. Patent 7,103,113 B2 and Lampe et al. U.S. Patent 5,633,893.

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To response the rejection, applicant has amended independent claims 1, 10, and 22. In

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detail, applicant has added the limitation of claim 3 into claim 1. Amended independent claim 1 now recites "A non-coherent frequency shift keying transmitting circuit for up-converting a baseband signal to a radio frequency signal , comprising: a micro processing unit, for receiving said baseband signal and generating a digital signal sequence corresponding to said baseband signal; a frequency synthesizer using interpolation and a linear feedback shift register, coupled to said micro processing unit, for synthesizing said digital signal sequence to a plurality of synthesized signals; a first oscillator, coupled to said frequency synthesizer, for up-converting said plurality of synthesized signals to an intermediate frequency signal; a first filter, coupled to said first oscillator, for removing a noise of said intermediate frequency signal; a digital-analog converter coupled to said first filter; a second oscillator, coupled to said digital-analog converter, for up-converting to the radio frequency signal; a second filter, coupled to said second oscillator, for removing a noise of said radio frequency signal; and a power amplifier coupled to said second filter."

The Office Action objected claims 3 and 14 as being dependent upon a rejected base claims, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Therefore, amended independent claim 1 should be allowed.

Because claims 2 and 4-9 depend on amended independent claim 1, claims 2 and 4-9 should be also allowed.

Amended independent claim 10 now recites "A non-coherent frequency shift keying transmitting circuit for up-converting a baseband signal to a radio frequency signal , comprising:

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a micro processing unit, receiving said baseband signal and generating a digital signal sequence corresponding to said baseband signal; an intermediate frequency processor, coupled to said micro processing unit, up-converting said digital signal sequence to an intermediate frequency signal; and a radio frequency processor, coupled to said intermediate frequency processor, up-converting said intermediate frequency signal to a radio frequency signal; wherein said intermediate frequency processor comprises a frequency synthesizer using interpolation and a linear feedback shift register, coupled to said micro processing unit, synthesizing said digital signal sequence to a plurality of synthesized signals." As reasons similar to amended claim 1, amended independent claim 10 should be allowed.

Because claims 11-20 depend on amended independent claim 10, claims 11-20 should be also allowed.

Amended independent claim 22 recites "A method of non-coherent frequency shift keying transmission, for up-converting a baseband signal to a radio frequency signal , comprising: receiving said baseband signal and generating a digital signal sequence corresponding to said baseband signal; using interpolation and a linear feedback shift register to synthesize said digital signal sequence to a plurality of synthesized signals; up-converting said plurality of synthesized signals to an intermediate frequency signal with a first oscillating method; removing a noise of said intermediate frequency signal with a first filtering method; converting said noise-removed intermediate frequency signal to an analog signal; up-converting said analog signal to the radio frequency signal with a second oscillating method; removing a noise of said radio frequency signal with a second filtering method; and amplifying said noise-removed radio

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frequency signal and transmitting said amplified radio frequency signal." As reasons similar to amended claim 1, amended independent claim 22 should be allowed.

Because claims 23-27 depend on amended independent claim 22, claims 23-27 should be also allowed.

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**CONCLUSION**

For at least the foregoing reasons, it is believed that the pending claims 1-2, 4-13, 15-20, and 22-27 are in proper condition for allowance. If the Examiner believes that a telephone conference would expedite the examination of the above-identified patent application, the Examiner is invited to call the undersigned.

Date :

May 4, 2007

Respectfully submitted,

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